

# Anti-PSMC5 Antibody [PSH0-22]

HA721301



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IHC-P
<b>Molecular Wt:</b>	Predicted band size: 46 kDa
<b>Clone number:</b>	PSH0-22

**Description:** The 26S proteasome is a multicatalytic proteinase complex with a highly ordered structure composed of 2 complexes, a 20S core and a 19S regulator. The 20S core is composed of 4 rings of 28 non-identical subunits; 2 rings are composed of 7 alpha subunits and 2 rings are composed of 7 beta subunits. The 19S regulator is composed of a base, which contains 6 ATPase subunits and 2 non-ATPase subunits, and a lid, which contains up to 10 non-ATPase subunits. Proteasomes are distributed throughout eukaryotic cells at a high concentration and cleave peptides in an ATP/ubiquitin-dependent process in a non-lysosomal pathway. An essential function of a modified proteasome, the immunoproteasome, is the processing of class I MHC peptides. This gene encodes one of the ATPase subunits, a member of the triple-A family of ATPases which have a chaperone-like activity. In addition to participation in proteasome functions, this subunit may participate in transcriptional regulation since it has been shown to interact with the thyroid hormone receptor and retinoid X receptor-alpha. Two transcript variants encoding different isoforms have been found for this gene.

**Immunogen:** Recombinant protein within Human PSMC5 aa 207-406 / 406.

**Positive control:** A431 cell lysate, MCF-7 cell lysate, Hela cell lysate, HepG2 cell lysate, 293T cell lysate, NIH/3T3 cell lysate, PC-12 cell lysate, mouse testis tissue lysate, mouse heart tissue lysate, rat testis tissue lysate, rat brain tissue lysate, human lung carcinoma tissue, mouse brain tissue, rat brain tissue.

**Subcellular location:** Cytoplasm, Nucleus.

**Database links:** SwissProt: P62195 Human | P62196 Mouse | P62198 Rat

**Recommended Dilutions:**

<b>WB</b>	1:1,000
<b>IHC-P</b>	1:1,000

**Storage Buffer:** PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Protein A affinity purified.

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Technical: 0086-571-89986345

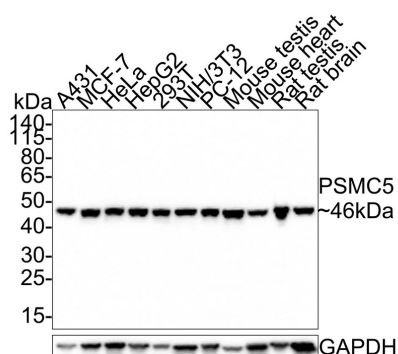
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Applications: WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

## Images

**Fig1:** Western blot analysis of PSMC5 on different lysates with Rabbit anti-PSMC5 antibody (HA721301) at 1/1,000 dilution.



Lane 1: A431 cell lysate (20 µg/Lane)  
 Lane 2: MCF-7 cell lysate (20 µg/Lane)  
 Lane 3: Hela cell lysate (20 µg/Lane)  
 Lane 4: HepG2 cell lysate (20 µg/Lane)  
 Lane 5: 293T cell lysate (20 µg/Lane)  
 Lane 6: NIH/3T3 cell lysate (20 µg/Lane)  
 Lane 7: PC-12 cell lysate (20 µg/Lane)  
 Lane 8: Mouse testis tissue lysate (40 µg/Lane)  
 Lane 9: Mouse heart tissue lysate (40 µg/Lane)  
 Lane 10: Rat testis tissue lysate (40 µg/Lane)  
 Lane 11: Rat brain tissue lysate (40 µg/Lane)

Predicted band size: 46 kDa

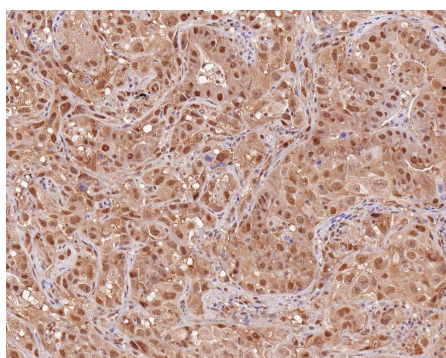
Observed band size: 46 kDa

Exposure time: 30 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721301) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

**Fig2:** Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue with Rabbit anti-PSMC5 antibody (HA721301) at 1/1,000 dilution.



The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA721301) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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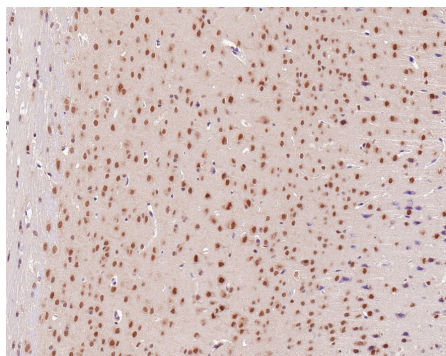
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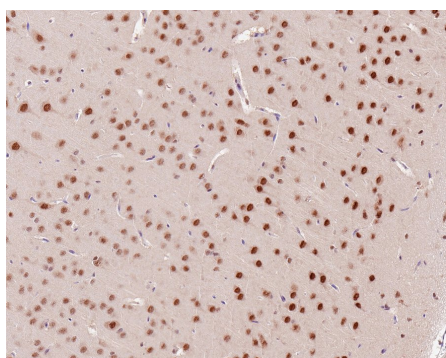
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**Fig3:** Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rabbit anti-PSMC5 antibody (HA721301) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA721301) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig4:** Immunohistochemical analysis of paraffin-embedded rat brain tissue with Rabbit anti-PSMC5 antibody (HA721301) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA721301) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### Background References

1. He Z et al. PSMC5 Promotes Proliferation and Metastasis of Colorectal Cancer by Activating Epithelial-Mesenchymal Transition Signaling and Modulating Immune Infiltrating Cells. *Front Cell Dev Biol.* 2021 Jul
2. Zavodszky E et al. Identification of a quality-control factor that monitors failures during proteasome assembly. *Science.* 2021 Aug

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